AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) Apparatus for predicting failure in a system, the apparatus comprising:

a measurement unit for repeatedly measuring a disorder indicator of said system, <u>wherein the disorder indicator represents a non-designated output of said system,</u> and

a comparator for comparing obtained measurements of said disorder indicator with a predetermined statistical description of said disorder indicator to determine whether a deviation is present between presently measured values of said disorder indicator and said statistical description, said apparatus being operable to issue a failure prediction upon determination that such a deviation is statistically significant.

2. (Original) Apparatus according to claim 1, wherein said measurement unit is operable to measure said disorder indicator via a communication link, thereby to monitor remotely located systems.

3. (Withdrawn) Apparatus according to claim 1, further comprising a statistical unit for

building up said statistical description of said disorder indicator using measurements taken via

said measurement unit during a training phase of operation of said system.

4. (Withdrawn) Apparatus according to claim 1, wherein said statistical description

comprises an average and a standard deviation.

5. (Withdrawn) Apparatus according to claim 4, wherein said deviation is considered to

be statistically significant when exceeding a threshold of substantially three standard deviations.

6. (Withdrawn) Apparatus according to claim 4, further comprising a deviation

thresholder for dynamically setting a threshold deviation level based on said statistical

description.

7. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is waste

heat.

8. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is sound.

9. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is waste memory.

10. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is a proportion of time spent by said system other than on a given task.

11. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is a ratio between system load and system resource usage.

12. (Withdrawn) Apparatus according to claim 1, wherein said disorder indicator is a feature having a power law distribution.

13. (Withdrawn) Apparatus according to claim 12, wherein said feature is a distribution of message types in a computer system fault logger.

14. (Withdrawn) Apparatus according to claim 12, wherein said power law distribution comprises a ranking of sub-features of said feature and a deviation is determinable by said comparator from a change in said ranking of said sub-features in said distribution.

15. (Withdrawn) Apparatus according to claim 12, wherein a deviation is determinable by said comparator from a change in overall quantity of said disorder indicator.

16. (Withdrawn) Apparatus according to claim 12, wherein said disorder indicator is a distribution of failure types and said deviation is a deviation from the Zipf-Estoup rule.

17. (Original) Apparatus according to claim 1, further comprising a communication unit for alerting a call center in the event of a failure prediction.

18. (Original) Apparatus according to claim 1, applicable to a system without regard to a level of complexity of said system.

19. (Currently Amended) Apparatus for predicting failure in a system, the apparatus comprising:

a measurement unit for repeatedly measuring a disorder indicator of said system, wherein the disorder indicator represents a non-designated output of said system,

a statistical unit for building up a statistical description of said disorder indicator using measurements taken via said measurement unit during a training phase of operation of said system, and

a system thresholder, for using said statistical description to apply thresholds to said

disorder indicator to predict system failure.

20. (Currently Amended) A method of failure prediction comprising:

repeatedly measuring a disorder indicator of a system, <u>wherein the disorder indicator</u>

<u>represents a non-designated output of said system,</u>

comparing said disorder indicator with a statistical description of idealized behavior ~~of~~

~~said feature,~~

determining from said comparison whether a deviation is present in said disorder

indicator behavior, and

issuing an alert in the event of determination of such a deviation being of statistical

significance.

21. (Original) Method according to claim 20, wherein said measuring is carried out

remotely.

22. (Withdrawn) Method according to claim 20, further comprising building up said

statistical description of said disorder indicator using measurements taken via said measurement

unit during a calibration period of normal operation of said system.

23. (Withdrawn) Method according to claim 20, wherein said statistical description

comprises an average and a standard deviation.

24. (Withdrawn) Method according to claim 23, wherein said deviation present is at least

substantially three standard deviations.

25. (Withdrawn) Method according to claim 23, further comprising dynamically setting a

threshold deviation level based on said statistical description.

26. (Withdrawn) Method according to claim 20, wherein said disorder indicator is waste

heat.

27. (Withdrawn) Method according to claim 20, wherein said disorder indicator is sound.

28. (Withdrawn) Method according to claim 20, wherein said disorder indicator is waste

memory.

29. (Withdrawn) Method according to claim 20, wherein said disorder indicator is a

proportion of time spent by said system other than on a given task.

30. (Withdrawn) Method according to claim 20, wherein said disorder indicator is a ratio

between system load and system resource usage.

31. (Withdrawn) Method according to claim 20, wherein said disorder indicator is a

feature having a power law distribution.

32. (Withdrawn) Method according to claim 31, wherein said feature is a distribution of

message types in a computer system fault logger.

33. (Withdrawn) Method according to claim 31, wherein said distribution comprises a

ranking of sub-features of said feature and a deviation is determinable from a change in said

ranking of said sub-features in said distribution.

34. (Withdrawn) Method according to claim 31, wherein a deviation is determinable

from a change in overall quantity of said disorder indicator.

35. (Withdrawn) Method according to claim 31, wherein said disorder indicator is a

distribution of failure types and said deviation is a deviation from the ZipfEstoup rule.

36. (Original) Method according to claim 20, further comprising alerting a call center in

the event of a failure prediction.

37. (Original) Method according to claim 20, applicable to a system without regard to a

level of complexity of said system.

38. (Currently Amended) A method of failure prediction in an operative system, the

method comprising:

selecting a measurable indicator of a level of disorder in said operative system,

obtaining a statistical description of behavior of said measurable indicator within said

operative system,

repeatedly measuring said disorder indicator during operation of said system, wherein the

disorder indicator represents a non-designated output of said system,

comparing said disorder indicator with said statistical description,

determining from said comparison whether a deviation is present in said disorder

indicator behavior, and

issuing an alert in the event of determination of such a deviation being of statistical

significance.

39. (Original) A data carrier ~~holding data~~ <u>having stored thereon computer executable</u>

<u>instructions</u> which when combined with a general purpose computer is operable to provide:

a measurement unit for repeatedly measuring a disorder indicator of an external system,

<u>wherein the disorder indicator represents a non-designated output of said system,</u> and

a comparator for comparing obtained measurements of said disorder indicator with a

predetermined statistical description of said disorder indicator to determine whether a deviation

is present between presently measured values of said disorder indicator and said statistical

description, said combination being operable to issue a failure prediction upon determination that

such a deviation is statistically significant.

40. (Currently Amended) Apparatus for measuring quality of software operating in a

system, the apparatus comprising:

a measurement unit for repeatedly measuring a disorder indicator of said system, <u>wherein</u>

<u>the disorder indicator represents a non-designated output of said system,</u> and

a comparator for comparing obtained measurements of said disorder indicator with a

predetermined statistical description of said disorder indicator to determine whether a deviation

is present between presently measured values of said disorder indicator and said statistical

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description, said apparatus being operable to issue a quality score of said software based on an

extent of said deviation.